

REMARKS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested. Claims 1-8 and 24-42 are pending.

Rejection of Claims 1-7, 24-33 and 35-41 Under 35 U.S.C. §103(a)

The Office Action rejects claims 1-7, 24-33 and 35-41 under 35 U.S.C. §103(a) as being unpatentable over Li (U.S. Patent No. 6,275,531) ("Li") in view of Chiu et al. (U.S. Patent No. 6,233,283) ("Chiu et al.") and Masaki et al. (U.S. Patent No. 6,359,309) ("Masaki et al."). Applicants respectfully traverse this rejection and submits that one of skill in the art would not have sufficient motivation or suggestion to combine the teachings of Li with Chiu et al. and Masaki et al.

To establish a *prima facie* case of obviousness, the Examiner must meet three criteria. First, there must be some motivation or suggestion, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to combine the references. Second, there must be a reasonable expectation of success, and finally, the prior art references must teach or suggest all the claim limitations. The Examiner bears the initial burden of providing some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." MPEP 2142.

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959). MPEP 2143.01.

Furthermore, if the examiner determines there is factual support for rejecting the claimed invention under 35 U.S.C. 103, the examiner must then consider any evidence supporting the patentability of the claimed invention, such as any evidence in the specification or any other evidence submitted by the applicant. The ultimate determination of patentability is based on the entire record, by a preponderance of evidence, with due consideration to the persuasiveness of any arguments and any secondary evidence. *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). The legal standard of "a preponderance of evidence" requires the evidence to be more convincing than the evidence which is offered in opposition to it. With regard to rejections under 35 U.S.C. 103, the examiner must provide evidence which as a whole shows that the legal determination sought to be proved (i.e., the reference teachings establish a *prima facie* case of obviousness) is more probable than not. MPEP 2142.

The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art, and all teachings in the prior art must be considered to the extent that they are in analogous arts. Where the teachings of two or more prior art references conflict, the examiner must weigh the power of each reference to suggest solutions to one of ordinary skill in the art, considering the degree to which one reference might accurately discredit another. *In re Young*, 927 F.2d 588, 18 USPQ2d 1089 (Fed. Cir. 1991). MPEP 2143.01.

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

With the above principles in mind, Applicants respectfully submit that one of skill in the art would not be motivated to combine these references for at least the following reasons. The Office Action on page 3 appropriately concedes that Chiu et al. do not disclose additional high priority frames that are encoded as low quality then is generally used for high priority frames.

However, the Office Action on page 4 asserts that it would be obvious to one of skill in the art to combine Li in view of Chiu et al. with the teachings of Masaki et al. regarding setting the quantization step size larger during an error mode for the purpose of minimizing or suppressing a delay time so that a moving picture with smooth movement can be displayed on a receiving side, citing column 9, lines 40-47. However, Applicants respectfully submit that rather than suggesting combination to one of ordinary skill in the art, when the suggestive power of each reference is objectively analyzed, one of skill in the art would find that Chiu et al. actually teaches away from combination with Masaki et al.

For example, in column 1 to column 2 of Chiu et al., they explain that there are several schemes that are used when transmitting data from a transmission device to a receiving device. One aspect of the transmission schemes relates to errors in transmission and how to handle when a signal or a frame has been transmitted in error. For example, in column 1, lines 57-62, Chiu et al. explain that one approach is to use a second or enhancement layer to transmit a redundant version of a base layer when high losses are detected. Thus, the base layer will be transmitted on two distinct data streams which with the hope that at least one of the streams will be correctly received. Chiu et al. then explain that there are drawbacks to such schemes in that they fail to adequately take into account the limitation of human visual perception when viewing video signal. For example, not all video information in the form of lost data packets is visually perceptible by a user. Thus, redundant transmission of such information is inefficient use of bandwidth and such information is not necessary and will not results in appreciable different to a viewer of video information that is contained in the redundantly transmitted data packets. Accordingly, it is clear that the problem within the art that is identified by Chiu et al. relates to a retransmission of data when errors occur in the initial transmission. The invention identified by Chiu et al. is to limit the retransmission of lost video packet information in accordance with the

steps that are set out in the patent in which data which is visually perceptible to a viewer is taken into account when considering retransmission of video packets.

Applicants respectfully submit that the teachings of Masaki et al. fall right into line with the drawbacks in the prior art as it is articulated in Chiu et al. Notably, Applicants point to Figure 4, feature 431 of Masaki et al., which is identified as a retransmission buffer 431 in column 62, line 24 through column 63, line 12. Masaki et al. explain that retransmission buffer is a buffer memory for storing video data under transmission. The transmission control portion outputs the video data in the transmission buffer at a predetermined transmission rate and stores the video data in transmission in the retransmission buffer. When it receives a retransmission request from a radio receiving device it outputs the video data in the retransmission buffer to the video device. It also outputs an error notice indicating implementation of the retransmission to the mode selection portion and the threshold switching portion. Therefore, the procedure taught in Masaki et al. is that when the receiving device sends a retransmission request, the transmission control portion automatically transmits the video data in the retransmission buffer to the video receiving device in response to such a request. The process of automatic retransmission of data is taught throughout the Masaki et al. reference. For example, column 10, lines 45-51; column 11, lines 59-62; column 12, lines 30-35; column 30, lines 43-46; column 31, lines 20-23; column 38, lines 43-48; column 40, lines 29-35, and so forth. The basic point made here by Applicants is that Masaki et al. teach as a basic component of their operation the retransmission of redundant information. It is this feature which permeates the teachings of Masaki et al. that is specifically identified by Chiu et al. as a drawback and a deficiency in the status of the art. Accordingly, because Chiu et al. expressly distance themselves from a primary feature in the teachings of Masaki et al., Applicants respectfully submit that there is clearly no suggestion or motivation found within these references that these teachings should be combined.

Other reasons exist that weaken the case for a combination of these references. For example, Masaki et al. also note in their introduction in column 1, lines 15-21 that the invention relates to moving picture communication at low bit rate including the ITU recommendation H.261. As is known in the art, the H.261 was established in 1990 as a video coding standard originally designed for transmission over ISDN lines. This was the initial video coding standard from which other standards have evolved but as a result many of the features in H.261 have become obsolete. For example, nothing in Masaki et al. references the use of a base layer or an enhancement layer when transmitting data. Whereas Chiu et al. includes a discussion of multiple layers of video signaling to provide for efficient use of bandwidth. One of skill in the art would recognize that the efforts taught in Masaki et al. relating to the quantization control method had been replaced by the more popular use of a base layer and an enhancement layer as the video compression standards evolved. Accordingly, where Chiu et al. teach a layered video coding method one of skill in the art would not be motivated to combine such a layered approach with an outdated video coding approach as is taught in Masaki et al. Similarly, Li also discloses a video coding method in which a base layer and an enhancement layer are used. Thus, for the same reason one of skill in the art would recognize the more advanced method of layering the bit stream and would certainly not have *motivation* to go back to the older method of seeking to efficiently use the bandwidth that was originally associated with ITU recommendation H.261.

Applicants further note that the filing of this application is dated June of 2001 and that the timeframe in which Section 103 requires the analysis to occur is "the time the invention was made to a person having ordinary skill in the art." Thus, Applicants simply assert that in the year 2001, one of ordinary skill in the art of video coding would recognize the advances that had been made over the original H.261 recommendation and specifically with the basic features of layering the bit streams for the purpose of efficient use of bandwidth that such a person of skill in

the art would not be motivated to look into the teachings of Masaki et al. and combine those teaching with Chiu et al. and/or Li. Accordingly, Applicants submit that based on a preponderance of the evidence in the record that these references should not be combined and that claims 1-7, 24-33 and 35-41 are patentable and in condition for allowance.

Rejection of Claims 8, 34 and 42 Under 35 U.S.C. §103(a)

The Office Action rejects claims 8, 34 and 42 under 35 U.S.C. §103(a) as being unpatentable over Li in view of Chiu et al. and Masaki et al. as applied to claims 7, 33 and 41 above, and further in view of Zhang et al. (U.S. Patent No. 6,816,194) ("Zhang et al."). Applicants respectfully traverse this rejection and submit that one of skill in the art would not have sufficient motivation or suggestion to combine these four references.

Claims 8, 34 and 42 are patentable based on the analysis above inasmuch as one of skill in the art would not have sufficient motivation or suggestion to combine Li with Chiu et al. and Masaki et al. Furthermore, this rejection adds Zhang et al. to the combination of references. Applicants note that Zhang et al. teach a scalable layered video coding scheme and based on the analysis above Applicants respectfully submit that one of skill in the art would not be motivated to combine Zhang et al.'s scalable layered video coding scheme with the teachings of Masaki et al. which do not relate or teach a layered scheme. Accordingly, for this reason as well as the reasons set forth above, Applicants submit that claims 8, 34 and 42 are patentable and in condition for allowance.

CONCLUSION

Having addressed all rejections and objections, Applicants respectfully submit that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited. If necessary, the Commissioner for Patents is authorized to charge or credit the **Isaacson, Irving, Stelacone & Prass, LLC, Account No. 50-2960** for any deficiency or overpayment.

Respectfully submitted,

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